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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/446,523	12/28/99	ALTMeyer	G 39252

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EXAMINER

OCAMPO, M
ART UNIT PAPER NUMBER

1723
DATE MAILED:

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09/05/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/446,523

Applicant(s)

ALTMAYER ET AL.

Examiner

Marianne S. Ocampo

Art-Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) 4,5,8 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: the statements or passages, in page 2, lines 12 –13 and 14, namely “Such an object is disclosed by a filter element having the features found in Claim 1” and “Owing to the fact that according to the disclosure part of Claim 1...”, should be rewritten because it is unclear what specific features or disclosure is being incorporated into the specification.

Appropriate correction is required.

Claim Objections

2. Claims 8 – 9 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 8- 9 have not been further treated on the merits.

3. Claim 5 is objected to because of the following informalities: the phrase “ one of the Claims” in the preamble should be changed to “claim” in line 1. Appropriate correction is required.

4. Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim, or amend the claim to place it in proper dependent form, or rewrite the claim in independent form. Claim 4 recites process steps of forming the filter element (product), namely "the mat filter being brought inward at one of its frontal ends in such a manner that a cone is formed which facilitate the introduction of the filter into the cylindrical filter casing" in lines 1 - 3. Since the claims 1 and 3 from which claim 4 depends from, are product claims and not process claims, claim 4 fails to further structurally limit the subject matter of the previous claims.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1 - 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a). Claim 1 recites the limitation "plastic casing which is formed from a flat blank, of which two opposite ends..." in lines 4 - 8. This limitation is considered a process (of making/forming) step limitation. Is claim 1 supposed to be a product claim or a process claim? It is unclear as what the invention being claimed herein, a filter element or a process of making

such filter element. For examination purposes, the examiner has considered that the invention is indeed a product which is a filter element.

b). Claim 2 recites the limitation "these elements" in line 3. There is insufficient antecedent basis for this limitation in the claim.

c). Claim 3 recites the limitation "the cylinder" in line 2. There is insufficient antecedent basis for this limitation in the claim.

d). Claim 4 recites the limitation "the cylindrical filter casing" in line 3. There is insufficient antecedent basis for this limitation in the claim. Furthermore, since claim 4 is a product by process claim, it is unclear what other structural elements or details are being added by the process steps to the apparatus/product (filter element) being claimed as the invention.

e). Claims 5 – 9 are dependent claims of the base claim 1, and thus, they also suffer the same defects since they depend therefrom.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1723

8. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Domnick (US 3,460,680).

9. With respect to claim 1, Domnick discloses a filter element comprising a fluid-permeable supporting pipe (11) surrounded by a mat filter (filter cloth &/or glass filter medium, 21 &/or 17), and the mat filter (21, 17) being enclosed by a filter casing (10) with openings delimiting a filter chamber (not shown) and the filter element also having two end caps (12, 13), characterized in that the filter casing (10) consisting of a plastic (casing) material which is formed from a flat blank (flat sheet) of which two opposite ends had been bent/rolled toward one another and joined together securely with one another, forming a filter chamber, and the ends (edges) of the sheet/flat blank being joined securely together by means of a sealing seam produced by a welding method, as in cols. 2 - 3 and figs. 1 - 4. It is well known in the art that ultrasonic welding or using a heat soldering/heating element to weld or join plastic edges together are generally well known welding methods.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1 – 2 and 5 - 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pall (US 4,154,688) in view of Domnick.

12. With regards to claim 1, Pall discloses a filter element (1) comprising a fluid-permeable supporting pipe (16) surrounded by a mat filter (2) which then enclosed by a filter casing (15) with openings delimiting a filter chamber and the filter element (1) also having two end caps (20, 21) characterized in that the filter casing (15) consists of a plastic (casing) material, as in col. 4, lines 6 – 44 and figs. 2 – 3. However, Pall fails to disclose the casing (15) being formed from a flat blank of which two opposite ends are bent toward one another and joined together securely with one another with formation of the filter chamber by means of a sealing seam produced by heat-sealing or a heating element or an ultrasonic welding method. This last portion of claim 1 makes claim 1 an example of a *product by process* claim. The patentability of a product by process claim is based upon the product itself, even though the claim is limited and defined by process, and therefore, the product in such a claim is unpatentable if it is the same as, or obvious from the product of the prior art, even if the product of the prior art had been made by a different process. See *In re Thorpe, et al.*, No. 85-1913 (11-21-85) 227 USPQ pages 964 – 966. Here, the product of Pall is considered the same, or at least an obvious modification of the product/filter element of the claimed invention because the filter element of Pall meets all the structural limitations of the claimed filter element, except for the process step recited at the end

Art Unit: 1723

of claim 1. In this rejection, the examiner has considered that the claimed product (filter element with a plastic casing which) has a seam where the ends of the plastic flat blank meet and joined, however, despite the showing or having a seam where the ends of the plastic flat blank are joined, it is considered an obvious modification of a filter element with a plastic casing which had been extruded or injection-molded to make the same product.

In addition, Domnick teaches a filter element, similar to that of Pall's, comprising a fluid-permeable supporting pipe (11) surrounded by a mat filter (filter cloth &/or glass filter medium, 21 &/or 17), and the mat filter (21, 17) being enclosed by a filter casing (10) with openings delimiting a filter chamber (not shown) and the filter element also having two end caps (12, 13), characterized in that the filter casing (10) consisting of a plastic (casing) material which is formed from a flat blank (flat sheet) of which two opposite ends had been bent/rolled toward one another and joined together securely with one another, forming a filter chamber, and the ends (edges) of the sheet/flat blank being joined securely together by means of a sealing seam produced by a welding method, as in cols. 2 - 3 and figs. 1 - 4. It is well known in the art that ultrasonic welding or using a heat soldering/heating element to weld or join plastic edges together are generally well known welding methods. It is considered obvious to one of ordinary skill in the art at the time of the invention to modify the filter element of Pall by adding the embodiment taught by Domnick, in order to provide an alternative design for a plastic casing of the filter element, as well as provide a less expensive method of forming such filter element without using expensive extrusion or injection-molding machines to form the plastic casing of the filter element.

13. With respect to claim 2, Pall discloses the mat filter (2) being pleated and comprised of plastic materials, as in col. 5, lines 36 - 50 and fig. 2. Pall fails to disclose the *formation of an additional filter fold and with flush arrangement of ends of the mat filter on one another allow the ends of the pleated mat filter to be tightly joined together by means of an ultrasonic welding method*. Once again, the preceding statement contained product by process step limitations (in italic format). As already mentioned in claim 1 above, the patentability of a product by process claim is based upon the product itself, eventhough the claim is limited and defined by process, and therefore, the product in such a claim is unpatentable if it is the same as, or obvious from the product of the prior art, even if the product of the prior art had been made by a different process. See *In re Thorpe, et al.*, No. 85-1913 (11-21-85) 227 USPQ pages 964 - 966. Here, the product of Pall is considered the same, or at least an obvious modification of the product/filter element of the claimed invention because the filter element of Pall meets all the structural limitations (such as the mat filter being pleated and comprised of plastic material) of the claimed filter element, except for the process step recited at the end of claim 2.

14. Concerning claim 5, Pall discloses the mat filter (2) and the filter casing (15) consisting (being formed) of thermoplastic materials, such as polyethylene and polyamide, as in cols. 4 - 5 which are known in the art as recyclable plastic materials (See *Technical Guidelines for the Identification and Environmentally Sound Management of Plastic Waste and its Disposal*, pages 23 - 25).

15. With respect to claim 6, Pall further discloses the two end caps (20, 21) also consisting (being fabricated) of thermoplastic materials, such as polyethylene, which is known as a recyclable plastic material, as in cols 4, lines 65 - 68 and 5, lines 1 - 7.

16. Regarding claim 7, Pall also discloses the supporting pipe (16) consisting of thermoplastic materials, such as polyethylene, as in col. 4, which is known as a recyclable plastic material.

17. Claims 1 - 2 and 5 - 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (US 4,609,465) in view of Domnick.

18. Regarding claim 1, Miller discloses a filter element comprising a fluid-permeable supporting pipe (16) surrounded by a mat filter (14) which then enclosed by a filter casing (15) with openings delimiting a filter chamber and the filter element also having two end caps (12, 13) characterized in that the filter casing (15) consists of a plastic (casing) material such as PVDF or polyvinylidene fluoride, and other fluoropolymers including PTFE, as in col. 2 and figs. 1 - 2. However, Miller fail to disclose the casing (15) being formed from a flat blank of which two opposite ends are bent toward one another and joined together securely with one another with formation of the filter chamber by means of a sealing seam produced by heat-sealing or a heating element or an ultrasonic welding method. This last portion of claim 1 makes

claim 1 an example of a *product by process* claim. The patentability of a product by process claim is based upon the product itself, even though the claim is limited and defined by process, and therefore, the product in such a claim is unpatentable if it is the same as, or obvious from the product of the prior art, even if the product of the prior art had been made by a different process. See *In re Thorpe, et al.*, No. 85-1913 (11-21-85) 227 USPQ pages 964 – 966. Here, the product of Miller is considered the same, or at least an obvious modification of the product/filter element of the claimed invention because the filter element of Miller meets all the structural limitations of the claimed filter element, except for the process step recited at the end of claim 1. In this rejection, the examiner has considered that the claimed product (filter element with a plastic casing which) has a seam where the ends of the plastic flat blank meet and joined, however, despite the showing or having a seam where the ends of the plastic flat blank are joined, it is considered an obvious modification of a filter element with a plastic casing which had been extruded or injection-molded to make the same product.

In addition, Domnick teaches a filter element similar to that of Miller's, comprising a fluid-permeable supporting pipe (11) surrounded by a mat filter (filter cloth &/or glass filter medium, 21 &/or 17), and the mat filter (21, 17) being enclosed by a filter casing (10) with openings delimiting a filter chamber (not shown) and the filter element also having two end caps (12, 13), characterized in that the filter casing (10) consisting of a plastic (casing) material which is formed from a flat blank (flat sheet) of which two opposite ends had been bent/rolled toward one another and joined together securely with one another, forming a filter chamber, and the ends (edges) of the sheet/flat blank being joined securely together by means of a sealing seam

produced by a welding method, as in cols. 2 – 3 and figs. 1 – 4. It is well known in the art that ultrasonic welding or using a heat soldering/heating element to weld or join plastic edges together are generally well known welding methods. It is considered obvious to one of ordinary skill in the art at the time of the invention to modify the filter element of Miller by adding the embodiment taught by Domnick, in order to provide an alternative design for a plastic casing of the filter element, as well as provide a less expensive method of forming such filter element without using expensive extrusion or injection-molding machines to form the plastic casing of the filter element.

19. With respect to claim 2, Miller discloses the mat filter (14) being pleated and comprised of composite plastic material, including PVDF and other fluoropolymers such as PTFE, as in cols. 2 – 3 and fig. 2. Miller fails to disclose the *formation of an additional filter fold and with flush arrangement of ends of the mat filter on one another allow the ends of the pleated mat filter to be tightly joined together by means of an ultrasonic welding method*. Once again, the preceding statement contained product by process step limitations (in italic format). As already mentioned in claim 1 above, the patentability of a product by process claim is based upon the product itself, eventhough the claim is limited and defined by process, and therefore, the product in such a claim is unpatentable if it is the same as, or obvious from the product of the prior art, even if the product of the prior art had been made by a different process. See *In re Thorpe, et al.*, No. 85-1913 (11-21-85) 227 USPQ pages 964 – 966. Here, the product of Miller is considered the same, or at least an obvious modification of the product/filter element of the

claimed invention because the filter element of Miller meets all the structural limitations (such as being pleated and comprised of plastic material) of the claimed filter element, except for the process step recited at the end of claim 2.

20. Concerning claim 5, Miller discloses the mat filter (14) and the filter casing (15) consisting (being formed) of plastic materials, in the form of fluoropolymers, such as PTFE. PTFE is among those fluoropolymers which are considered recyclable plastic materials. (See *Technical Guidelines for the Identification and Environmentally Sound Management of Plastic Waste and its Disposal*, pages 8 and 11).

21. With respect to claim 6, Miller also discloses the two end caps (12, 13) consisting (being fabricated) of fluoropolymers, such as PTFE, which is considered a recyclable plastic material, as in col. 2, lines 23 – 27.

22. Regarding claim 7, Miller also discloses the supporting pipe (16) consisting of fluoropolymers such as PTFE, which is a recyclable plastic material.

Response to Amendment

23. Amendments filed on 12-28-99 regarding Claims 6 – 7 had not been entered.

Applicants are asked to refile these amendments since the phrases “one of the Claims 1 to 5” is

not found in claim 6, and "one of Claims 1 to 6" is not found in claim 7. The examiner is unsure if this is a typographical error, since in the originally filed claims, claim 6 only depends on claim 5 and claim 7 depends from one of claims 5 or 6.

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents 4,244,820 (Hauk et al.), 5,472,606 (Steere et al.), 4,929,354 (Meyering et al.), 3,241,680 (Humbert et al.), 4,767,426 (Daly et al) and 4,956,089 (Hurst), and EP Patent 213,930 (Thomas).

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne S. Ocampo whose telephone number is (703) 305-1039. The examiner can normally be reached on Mondays to Fridays from 8:00 A.M. to 4:30 P.M..

26. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on (703) 308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Art Unit: 1723

27. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

M.S.O.
August 29, 2001

M. Savage
MATTHEW O. SAVAGE
PRIMARY EXAMINER